



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,905	03/02/2004	Dimitri Peter Zafiroglu	SWZ-014	2695
29626	7590	12/19/2005	EXAMINER	
THE H.T. THAN LAW GROUP WATERFRONT CENTER SUITE 560 1010 WISCONSIN AVENUE NW WASHINGTON, DC 20007			BEFUMO, JENNA LEIGH	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/790,905	ZAFIROGLU, DIMITRI PETER	
	Examiner	Art Unit	
	Jenna-Leigh Befumo	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 17 March 2004.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-32 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-32 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3/04</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. Claims 1 – 32 are pending.

Claim Rejections - 35 USC § 102/103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 – 15, 20, 21, 24, 26, 27, 31 and 32 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cohen et al. (5,624,729).

Cohen et al. discloses a composite fabric comprising an elastic sheet and a fibrous pile inserted into the elastic sheet by stitchbonding (column 4, lines 58 – 65). The elastic sheet must be able to elongate 20 to 400% (column 5, lines 9 – 15). The elastic film may be made from an elastic polymer such as elastic polyesters, polyurethanes, polyamides and polyolefins (column 5, lines 32 – 45). The fibrous materials may be nonelastic fibers or fiber bundles made from natural fibers or polymeric fibers such as nylon, polyester, or polyolefin (column 5, lines 47 – 65). The elastic films would stretch in both directions.

Although Cohen et al. does not explicitly teach the limitations of the elastic recovery of the entire composite, elastic modulus, and shrinkage, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. using polyurethane, polyester, or polyolefin based elastic films) and in the similar production steps (i.e. stitchbonding the film with nonelastic fibers) used to produce the composite fabric. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed limitations would obviously have been provided by the process disclosed by Cohen et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. Thus, claims 1 – 6, 8, 12 – 15, 27, 31 and 32 are rejected.

The elastic layer may also be a multilayer material which includes an additional web layer comprising elastic and nonelastic fibers (column 8, lines 42 – 50). Thus, claim 21 is rejected.

The composite material has a basis weight ranging from 10 to 150 gsm or more (column 10, lines 2 – 9). The examples use base elastic sheets with a basis weight of 34 gsm. Thus, claims 7, 9, and 20 are rejected.

Stitchbonding the elastic film layer to attach the fibrous layer will perforate the elastic film layer. Thus, claims 10 and 11 are rejected.

Further, the elastic layer can include a tackifying resin added to the extrudable elastomeric composition (column 8, lines 1 – 10). This would correlate to applicant's claimed filler, and more specifically a polymeric material. Thus claims 24 and 26 are rejected.

Art Unit: 1771

5. Claims 1 – 4, 10 – 16, 18, 20, 21, 27, and 29 – 32 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tochacek et al. (5,826,905).

Tochacek et al. discloses a stitchbonded fabric having a thermoplastic base web and a stitching yarn knitted through the thermoplastic base (column 1, lines 52 – 60). The thermoplastic base layer can be an elastomeric film or a laminate of an elastomeric film and nonwoven layer (column 4, lines 10 – 15). The stitching yarn is made from polyamide or polyester yarns (column 2, lines 53 – 56). The stitch construction can be a chain stitch or tricot stitch pattern (column 3, lines 15 – 40). As shown in the figures the stitch pattern is an open pattern which would allow the backing to be seen through the yarn overlaps. The thermoplastic base layer can have a basis weight of 50 to 175 gsm (column 4, lines 25 – 30). Further, the elastomeric material would have some stretch in both directions.

Although Tochacak et al. does not explicitly teach the limitations of the elastic recovery of the entire composite, elastic modulus, and shrinkage, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. elastomeric film base layers) and in the similar production steps (i.e. stitchbonding the film layer with nonelastic yarns) used to produce the composite fabric. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed limitations would obviously have been provided by the process disclosed by Tochacek et al. Note *In re Best*, 195 USPQ 433, footnote 4 (CCPA 1977) as to the providing of this rejection under 35 USC 103 in addition to the rejection made above under 35 USC 102. Thus, claims 1 – 4, 12 – 16, 18, 20, 21, 27, 31 and 32 are rejected.

Stitchbonding the elastic film layer to attach the fibrous layer will perforate the elastic film layer. Thus, claims 10 and 11 are rejected.

Finally, as shown in the examples the stitchbonded fabrics are bonded to additional film layers by calendaring which would bond the layers together by melting the thermoplastic sheets (Example 4, 6, and 9). These composites will also have a smooth surface. Thus claims 29 and 30 are rejected.

Claim Rejections - 35 USC § 103

6. Claims 5 – 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tochacek et al. in view of Cohen et al.

The features of Tochacek et al. and Cohen et al. have been set forth above. Tochacek et al. discloses using an elastomeric film layer as the base layer of the stitchbonded fabric, but fails to teach the type of elastomeric material. Cohen et al. is drawn to stitchbonded fabrics with an elastic film base layer. Cohen et al. discloses that the elastomeric film layer can be made from known elastic polymers, such as elastic polyurethane, elastic polyester, and elastic polyolefins. Therefore, it would have been obvious to one having ordinary skill in the art to use known elastic polymers such as elastic polyurethane, elastic polyolefin, or elastic polyester as disclosed by Cohen et al, as the elastic film layer in the stitchbonded fabric disclosed by Tochacek et al. since Cohen et al. teaches these types of elastic film layers can be stitchbonded. Thus, claims 5 – 9 are rejected.

7. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. or Tochacek et al.

The features of Cohen et al. and Tochacek et al. have been set forth above. Both Cohen et al. and Tochacek et al. disclose that the base layer can be a multilayer material including a fibrous web, however, neither reference discloses which side the nonwoven fibrous layer is on. However, it would have been obvious to one of ordinary skill in the art to use the nonwoven fibrous layer on the top of bottom layer of the film layer based on the textured and hand desired on the top and bottom layer of the finished product. An end product which requires a smoother bottom layer would require the film on the bottom of the composite and an end product which desires a soft fibrous surface as the base layer would desire the fibrous layer on the bottom. Either construction would have similar elastic and strength properties since the composite comprises the same layers bonded together. Thus, claims 22 and 23 are rejected.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. in view of Tochacek et al.

The features of Cohen et al. and Tochacek et al. have been set forth above. Cohen et al. fails to teach the stitching pattern used to create the stitchbonded fabric. Tochacek et al. discloses that stitchbonded structures can be produced with tricot stitching patterns. Thus, it would have been obvious to one of ordinary skill in the art to use the known tricot stitch pattern as the stitchbond fabric disclosed by Cohen et al. since it is obvious to use known stitching patterns based on the intended use of the fabric and tricot stitch patterns are used in stitchbonded fabrics. Thus, claims 16 is rejected.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tochacek et al.

The features of Tochacek et al. have been set forth above. Tochacek et al. fails to teach that the based layer comprises more than half of the composite fabrics weight. However,

Tochacek et al. discloses a stitchbond fabric which is used in airbags and requires a material the is thin, flexible, and strong (column 1, lines 20 – 25). The stitching yarns are applied to the fabric in an open knit, having as low as 2 stitches per centimeter and 2 rows per centimeter (column 2, lines 45 – 55). Further, the stitching thread is used to help reinforce the base layer, and the strength of the fabric is controlled by the gauge of the fabric and the size of the stitching yarn (column 3, lines 50 – 55). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose stitching yarn which is less than half of the weight of the composite, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). One of ordinary skill in the art would be motivated to provide the composite structure with sufficient strength properties without making the fabric too heavy and inflexible to prevent its use as an airbag fabric. Thus, claim 17 is rejected.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al.

The features of Cohen et al. have been set forth above. Cohen et al. fails to teach that the stitching threads cover the entire back of the fabric. However, Cohen et al. is drawn to producing a fabric with a dense pile structure by stitching the base layer in a stretched position and then releasing the base structure to increase the base density (abstract). Thus, it would have been obvious to one having ordinary skill in the art to use a stitching density high enough to cover the entire back of the fabric since Cohen et al. goal is to produce a fabric with an increased pile density. Thus, claim 19 is rejected.

11. Claims 24 – 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tochacek et al. in view of Swenson et al. (5,376,430).

The features of Tochacek et al. have been set forth above. While Tochacek et al. discloses elastomeric films can be used as the base layer, Tochacek et al. fails to teach adding fillers or additives to the elastic film. Swenson et al. is drawn to elastic film laminates (abstract). Swenson et al. teaches the elastic film can be made from various polymers including polyurethane, and polyolefin (column 3, lines 40 – 60). The elastic films can include tackifying resins and additives such as pigments, antioxidants, antistatic aids, photostabilizers, glass bubbles, reinforcing fiber, and metal salts (column 3, line 62 – column 4, line 10). Thus, it would have been obvious to include additives as taught by Swenson et al. in the elastomeric film disclosed by Tochacek et al. to help control the properties of the film as well as give the composite special properties such as antistatic features or photostabilizing features. Thus, claims 24 – 26 are rejected.

12. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. in view of Swenson et al.

The features of Cohen et al. have been set forth above. While Cohen et al. discloses elastomeric films can be used as the base layer, Cohen et al. fails to teach adding fibers or other dust or powder form additives. Swenson et al. is drawn to elastic film laminates (abstract). Swenson et al. teaches the elastic film can be made from various polymers including polyurethane, and polyolefin (column 3, lines 40 – 60). The elastic films can include tackifying resins and additives such as pigments, antioxidants, antistatic aids, photostabilizers, glass bubbles, reinforcing fiber, and metal salts (column 3, line 62 – column 4, line 10). Thus, it

would have been obvious to include additives as taught by Swenson et al, in the elastomeric film disclosed by Cohen et al. to help control the properties of the film as well as give the composite special properties such as antistatic features or photostabilizing features. Thus, claim 25 is rejected.

13. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Cohen et al. in view of Kitsee (1,253,050).

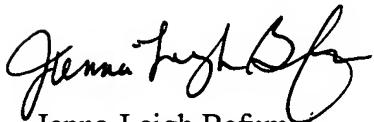
The features of Cohen et al. have been set forth above. Cohen et al. fails to teach embossing the pile fabric. Kitsee is drawn to applying a design to pile fabrics. Kitsee discloses that pile fabrics can be provided with a design by cutting or shearing the surface of the fabric, which would create an embossed design (page 1, lines 10 – 15). Thus, it would have been obvious to add a design as disclosed by Kitsee, to the pile fabric taught by Cohen et al. to make the fabric more visually appealing. Thus, claim 28 is rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jenna-Leigh Befumo whose telephone number is (571) 272-1472. The examiner can normally be reached on Monday - Friday (8:00 - 5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jenna-Leigh Befumo
December 9, 2005